Publication Number. MA3211-31
Issue number 1

MODIFICATION INSTRUCTIONS

for the

KODAK MINILOADER 1

Service Codes 3211, 3212

MODIFICATION No. M31

Type 1 SELECTIVE

PURPOSE:

The TILT MOTOR SHAFT is replaced with a new shaft which provides an earlier actuation of MICROSWITCH MS 14 to prevent the TILT MOTOR over-running. If the motor over-runs, film jams can result in the SUPPLY MAGAZINE or the MULTIPLE FILM LOAD DETECTOR area.

NOTE - Modification M17 added a potentiometer to control the speed of the TILT MOTOR, and in most cases this will provide all the control needed. However some TILT MOTORS cannot be satisfactorily adjusted for speed by modification M17. If is possible that the speed has to be set so slow to prevent over-running, that the TILT MOTOR occasionally stalls.

IMPORTANT: Only qualified service personnel should install this modification!

SERIAL NUMBERS: 1162 - 1269

INSTALLATION TIME: Approximately 1 hour.

SPECIAL TOOLS: None

PARTS REQUIREMENT: See Parts list.

PARTS LIST

PART NO.	DESCRIPTION	QUANTITY
30090031	MODIFICATION KIT	1
THE KIT CONTAINS:		
30012377	SHAFT FOR TILT MOTOR	1
MA3211-31	MODIFICATION INSTRUCTIONS	1

CAUTION

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

PLEASE NOTE

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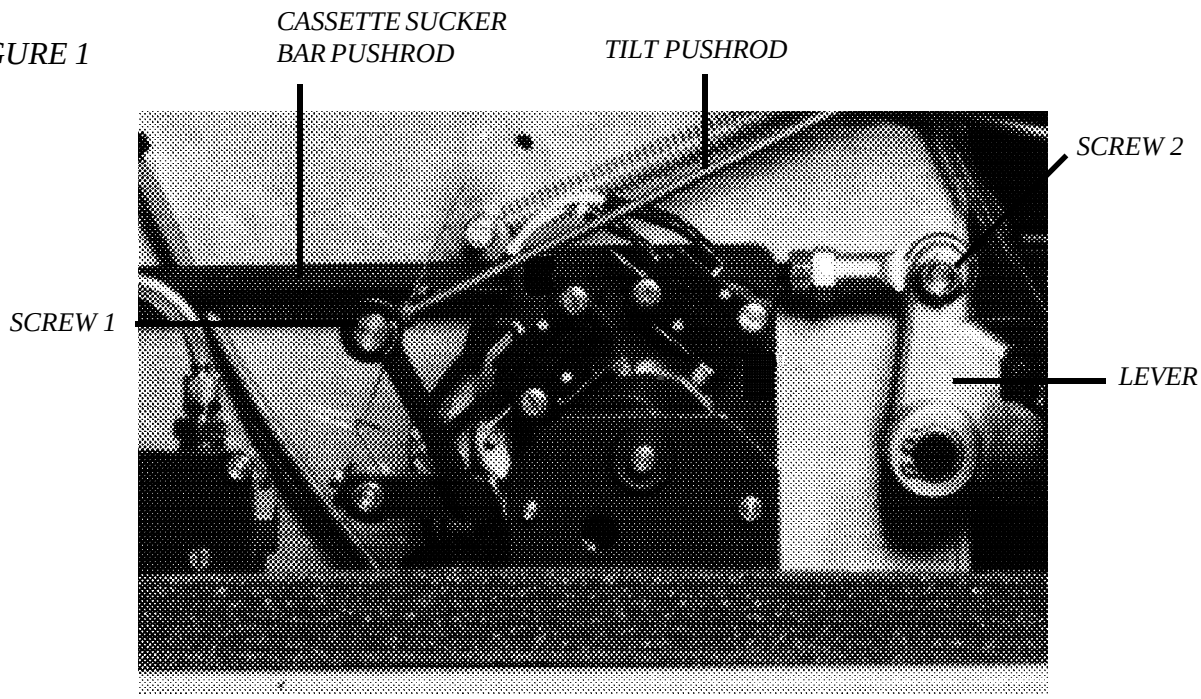
MODIFICATION INSTRUCTIONS

1. Switch off the MINILOADER, and remove the TOP COVER and the left (looking from the front) SIDE PANEL.

2. Disconnect the TILT PUSH ROD by removing the M4 SCREW (SCREW 1 in FIGURE 1) on the TILT LINKAGE.

3. Disconnect the CASSETTE SUCKER BAR PUSH ROD by removing the SCREW (SCREW 2 in FIGURE 1) from the LEVER. CAUTION - support the SUCKER BAR as you remove the SCREW, and gently lower the SUCKER BAR to the CASSETTE CONVEYOR BELT as it becomes loose. Do not attempt to disconnect the CASSETTE SUCKER BAR PUSH ROD by unscrewing the PUSH ROD, as you will destroy the adjustment.

FIGURE 1

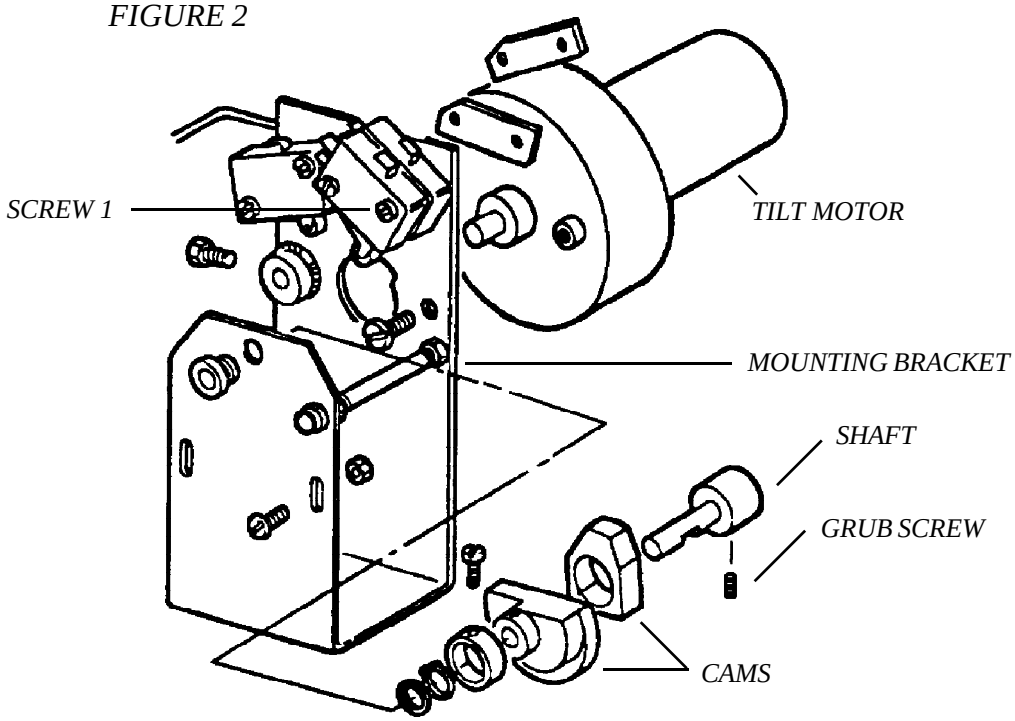


4. Carefully peel back the LIGHT SEAL to gain access to the SCREWS that secure the TILT MOTOR ASSEMBLY and remove them.

5. By rotating the complete assembly by 90 degrees it is now possible to withdraw the TILT MOTOR ASSEMBLY from the MINILOADER. The MICROSWITCH WIRES are still connected to the WIRING HARNESS so you must keep the assembly alongside the MINILOADER.

6. Remove the SCREW (1 in FIGURE 2) that retains the two MICROSWITCHES, and then rotate the MICROSWITCHES away from the CAM ASSEMBLY.

FIGURE 2



7. Remove the three SCREWS that secure the TILT MOTOR to the MOUNTING BRACKET. Hold the CAM FOLLOWERS away from the CAMS and withdraw the TILT MOTOR. The hole in the MOUNTING BRACKET is profiled to allow the withdrawal.

8. Change the existing SHAFT for the new SHAFT, reusing the GRUB SCREW. The new SHAFT has the FLAT for the MICROSWITCH operating CAM advanced by 15 degrees compared to the old SHAFT. This ensures the MICROSWITCHES are operated earlier. Reassemble the TILT MOTOR on the MOUNTING BRACKET.

9. Replace the MICROSWITCH MOUNTING SCREW, and adjust the MICROSWITCHES so the SWITCHES are not bottomed as the CAMS rotate.

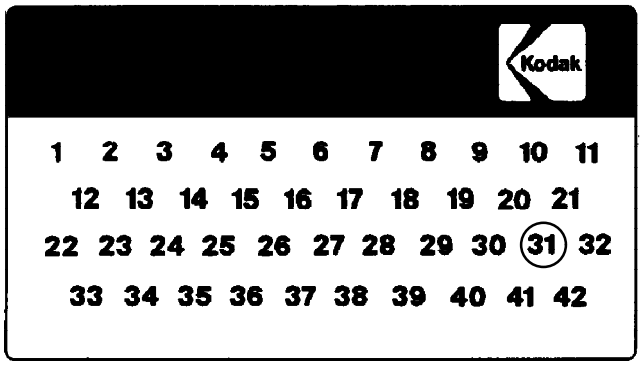
10. Refit the TILT MOTOR ASSEMBLY in the MINILOADER and refit the LIGHT SEAL.

11. Refit the CASSETTE SUCKER BAR PUSH ROD onto the LEVER.

12. Refit the TILT PUSH ROD.

13. Load some TEST FILM into the SUPPLY MAGAZINE and run some cycles to check the operation of the TILT. If necessary adjust the speed of the TILT MOTOR by means of the POTENTIOMETER P601 on PCB 106A/B. It should be possible to run the TILT MOTOR faster now that the modification has been carried out.

14. Circle M31 on the MODIFICATION LABEL and refit the PANELS.



HEALTH SCIENCES DIVISION

